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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/823,845
Filing Date: April 14, 2004
Appellant(s): LIN, DAVID HSING

MAILED

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Technology Center 2100

Randy A. Noranbrock
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 08/28/2007 appealing from the Office action mailed 05/15/2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,898,650 B1   Gao et al.   5-2005

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2.   Claims 1 – 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Gao

et al. ('Gao' herein after) (US 6,898,650 B1).

With respect to claim 1,

Gao discloses a method for retrieving data comprising: locking a linked list

(column 2 lines 46 – 54, Gao); retrieving data from an element in the linked list and also

advancing to a subsequent element while a breakpoint is not encountered (Figure 3,

column 3 lines 51 – 59, Gao); marking the subsequent element in the linked-list as in-

use when a breakpoint is encountered (column 3 lines 39 – 50, Gao); creating a

recommencement reference to the subsequent element (column 4 lines 36 – 49, Gao);

and unlocking the linked list (column 4 lines 60 – 66, Gao).

With respect to claim 2,

Gao discloses the method of claim 1 further comprising: locking the linked list
(column 2 lines 46 – 54, Gao); determining a subsequent element in the linked list
according to the recommencement reference (column 5 lines 1 – 9, Gao); and retrieving
data from the determined subsequent element (column 5 lines 10 – 17, Gao).

With respect to claim 3,

Gao discloses the method of claim 1 wherein creating a recommencement
reference to the subsequent element comprises: retrieving a pointer to the subsequent
element (column 2 lines 46 – 54, Gao); determining a process identifier for a current
process (column 2 lines 64 – 67 and column 3 lines 1 – 8, Gao); and associating the
pointer with the process identifier (column 3 lines 64 – 67 and column 4 lines 1 – 9,
Gao).

With respect to claim 4,

Gao discloses the method of claim 1 wherein marking the subsequent element in
the linked-list as in-use comprises maintaining a count of the quantity of processes that
require additional access to the element (figure 3 and column 3 lines 39 – 51, Gao).

With respect to claim 5,

Gao discloses a method for deleting an element from a linked list comprising:

determining if the element to be deleted is in-use (column 5 lines 10 – 21, Gao);

updating a recommencement reference to the element to refer to a data element that is

subsequent to the data element to be deleted when the element in is in-use (Table 14,

Gao); and deleting the element (column 5 lines 25 – 43, Table 14, Gao).

With respect to claim 6,

Gao discloses the method of claim 5 wherein updating a recommencement

reference to the element comprises: discovering a pointer associated with a process

identifier (column 5 lines 1 – 9, Gao); disassociating the process identifier from the

pointer; determining a pointer to a subsequent element (column 5 lines 10 – 17, Gao);

and associating the process identifier with the newly determined pointer (column 2 lines

64 – 67 and column 3 lines 1 – 8, Gao).

With respect to claim 7,

Gao discloses an apparatus for storing and retrieving data comprising: processor

capable of executing an instruction sequence, memory for storing an instruction

sequence, input unit for receiving data (Figures 1, 5A and 5 B, Gao); first output unit for

providing data according to a received data request, one or more ancillary output units

for providing data according to a received data request (column 2 lines 46 – 54, Gao);

instruction sequences stored in the memory including: data storage module that, when

executed by the processor, minimally causes the processor to: receive data from the

input unit allocate a data element to accommodate the data create a reference to the data element (column 5 lines 1 – 9, Gao); store the reference in at least one of a header pointer and a forward pointer included in a preceding data element and store the data in the data element (column 1 lines 29 – 43, Gao); data service module that, when executed by the processor, minimally causes the processor to: recognize a data request from the first output unit to the exclusion of all other data requests (column 3 lines 51 – 62, Gao); provide data to the first output unit from a data element according to a data element reference and also advance the data element reference to a subsequent data element while a breakpoint is not encountered (column 2 lines 31 – 38, Gao); mark a subsequent data element as in-use when a breakpoint is encountered (column 3 lines 39 – 50, Gao); create a recommencement reference to a subsequent data element (column 4 lines 36 – 49, Gao); and enable recognition of other data requests (column 4 lines 60 – 66, Gao).

With respect to claim 8,

Gao discloses the apparatus of claim 7 wherein the data service module, when executed by the processor, further minimally causes the processor to: recognize a data request from the first output unit to the exclusion of all other data requests (column 2 lines 46 – 54, Gao); and provide data to the first output unit from a data element according to the recommencement reference (column 5 lines 1 – 9, Gao).

With respect to claim 9,

Gao discloses the apparatus of claim 7 wherein the data service module causes
the processor to create a recommencement reference by minimally causing the
processor to: retrieve a pointer to a data element subsequent to a current data element
(column 2 lines 64 – 67 and column 3 lines 1 – 8, Gao); determine an identifier
associated with the data request received from the first output unit and store the
retrieved pointer and the determined identifier in an associative manner (column 3 lines
64 – 67 and column 4 lines 1 – 9, Gao).

With respect to claim 10,

Gao discloses the apparatus of claim 7 wherein the data service module causes
the processor to mark a subsequent data element as in-use by minimally causing the
processor to increment a use counter included in a subsequent data element (figure 3
and column 3 lines 39 – 51, Gao).

With respect to claim 11,

Gao discloses the apparatus of claim 7 wherein the data service module further
minimally causes the processor to receive a delete data request from an output unit by
minimally causing the processor to: determine if a data element to be deleted is in-use
(column 5 lines 10 – 21, Gao); update a recommencement reference to refer to a data
element that is subsequent to the data element to be deleted (Table 14, Gao); and
delete the data element according to the received delete data request (column 5 lines
25 – 43, Table 14, Gao).

With respect to claim 12,

Gao discloses the apparatus of claim 11 wherein the data service module causes the processor to update a recommencement reference by minimally causing the processor to: discover a pointer according to a data request identifier (column 5 lines 1 – 9, Gao); and replace the pointer with a pointer to a data element that is subsequent to the data element to be deleted (column 5 lines 10 – 17, Gao).

With respect to claim 13,

Gao discloses a computer readable medium having imparted thereon one or more instruction sequences for storing and retrieving data comprising: data storage module that, when executed by a processor, minimally causes the processor to: receive data from an input unit, allocate a data element to accommodate the data (Figures 1, 5A and 5 B, Gao); create a reference to the data element (column 5 lines 1 – 9, Gao) store the reference in at least one of a header pointer and a forward pointer included in a preceding data element and store the data in the data element (column 1 lines 29 – 43, Gao); data service module that, when executed by a processor, minimally causes the processor to: recognize a data request from a first output unit to the exclusion of all other data requests (column 3 lines 51 – 62, Gao); provide data to a first output unit from a data element according to a data element reference and also advance the data element reference to a subsequent data element while a breakpoint is not encountered (column 2 lines 31 – 38, Gao); mark a subsequent data element as in-use when a

breakpoint is encountered (column 3 lines 39 – 50, Gao); create a recommencement

reference to a subsequent data element (column 4 lines 36 – 49, Gao); and enable

recognition of other data requests (column 4 lines 60 – 66, Gao).

With respect to claim 14,

Gao discloses the computer readable medium of claim 13 wherein the data

service module, when executed by a processor, further minimally causes the processor

to: recognize a data request from a first output unit to the exclusion of all other data

requests (column 2 lines 46 – 54, Gao); and provide data to a first output unit from a

data element according to the recommencement reference (column 5 lines 1 – 9, Gao).

With respect to claim 15,

Gao discloses the computer readable medium of claim 13 wherein the data

service module causes a processor to create a recommencement reference by

minimally causing the processor to: retrieve a pointer to a data element subsequent to a

current data element (column 2 lines 64 – 67 and column 3 lines 1 – 8, Gao); determine

an identifier associated with a data request received from a first output unit and store

the retrieved pointer and the determined identifier in an associative manner (column 3

lines 64 – 67 and column 4 lines 1 – 9, Gao).

With respect to claim 16,

Gao discloses the computer readable medium of claim 13 wherein the data service module causes a processor to mark a subsequent data element as in-use by minimally causing the processor to increment a use counter included in a subsequent data element (figure 3 and column 3 lines 39 – 51, Gao).

With respect to claim 17,

Gao discloses the computer readable medium of claim 13 wherein the data service module further minimally causes the processor to receive a delete data request from an output unit by minimally causing the processor to: determine if a data element to be deleted is in-use (column 5 lines 10 – 21, Gao); update a recommencement reference to refer to a data element that is subsequent to the data element to be deleted (Table 14, Gao); and delete the data element according to the received delete data request (column 5 lines 25 – 43, Table 14, Gao).

With respect to claim 18,

Gao discloses the computer readable medium of claim 17 wherein the data service module causes the processor to update a recommencement reference by minimally causing the processor to: discover a pointer according to a data request identifier (column 5 lines 1 – 9, Gao); and replace the pointer with a pointer to a data element that is subsequent to the data element to be deleted (column 5 lines 10 – 17, Gao).

With respect to claim 19,

Gao discloses an apparatus for storing and retrieving data comprising: means for locking a linked list (column 2 lines 46 – 54, Gao); means for retrieving data from an element in the linked list and also advancing to a subsequent element while a breakpoint is not encountered (Figure 3, column 3 lines 51 – 59, Gao); means for marking the subsequent element in the linked-list as in-use when a breakpoint is encountered (column 3 lines 39 – 50, Gao); means for creating a recommencement reference to the subsequent element (column 4 lines 36 – 49, Gao); and means for unlocking the linked list (column 4 lines 60 – 66, Gao).

With respect to claim 20,

Gao discloses the apparatus of claim 19 further comprising: means for locking the linked list (column 2 lines 46 – 54, Gao); means for determining a subsequent element in the linked list according to the recommencement reference (column 5 lines 1 – 9, Gao); and means for retrieving data from the determined subsequent element (column 5 lines 10 – 17, Gao).

With respect to claim 21,

Gao discloses the apparatus of claim 19 further comprising a means for deleting an element in the linked-list (column 5 lines 10 – 21, Gao).

With respect to claim 22,

Gao discloses the apparatus of claim 21 wherein the means for deleting an

element comprises: means for determining if the element to be deleted is in-use

(column 5 lines 10 – 21, Gao); means for updating a reference to the element to refer to

a subsequent element in the linked list when the element in is in-use (Table 14, Gao);

and means for deleting the element (column 5 lines 25 – 43, Table 14, Gao).

(10) Response to Argument

First, Appellant argues that Gao fails to disclose or suggest "marking the subsequent

element in the linked-list as in-use after encountering a breakpoint".

In response to the Appellant's argument, the examiner contends that Gao

discloses and teaches the "marking the subsequent element in the linked-list as in use

after encountering a breakpoint". This teaching in Gao is found in figure 3 and column 3
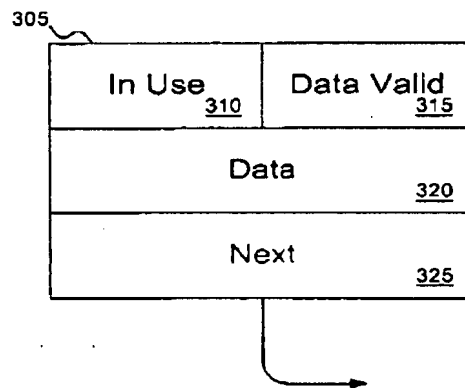
lines 39 – 47.

FIG. 3

Furthermore, in column 4 lines 36 – 40 and 62 – 67, Gao discloses the breakpoint

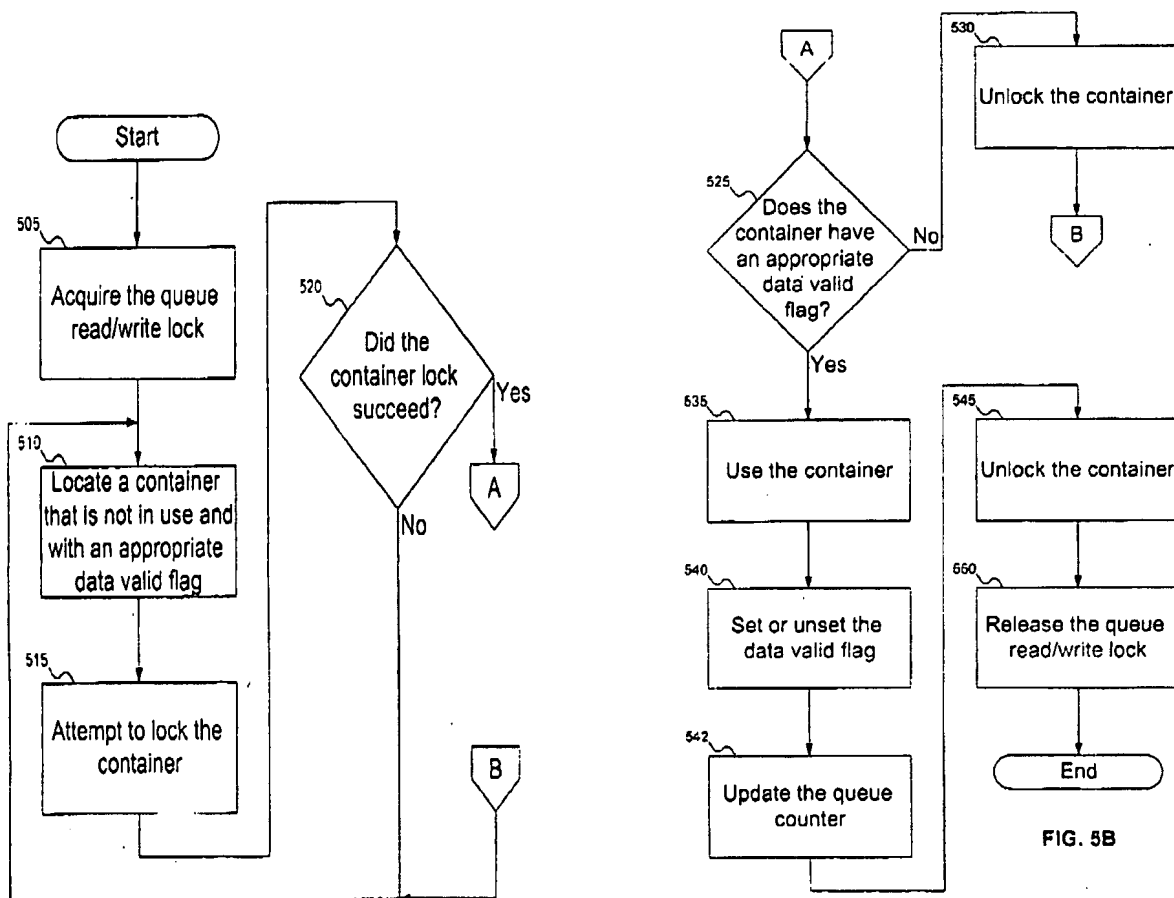being encountered using figure 5 A&B using elements 510 and 525.

FIG. 5A

FIG. 5B

Clearly from the figure and the cited text a breakpoint is encountered when a container

that is attempted to being used and is locked and set to be in the in-use state and thus

is marked.

Second, Appellant argues that Gao fails to disclose or suggest "creating a
recommencement reference to [a] subsequent element".

In response to the Appellant's argument, the examiner contends that Gao
discloses "creating a recommencement reference to a subsequent element". This
teaching in Gao is clearly found in column3 lines 9 – 16 and lines 56 – 59. when the
breakpoint has been marked and the flag set as in-use the recommencement point is
the one at breakpoint when the flag is unset or search for another container is made
according the algorithm in figure 5A&B cited above.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the
Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Navneet

Navneet K Ahluwalia

Examiner AU 2166

Conferees:

Hosain Alam   Mohammad Ali

Supervisory Patent Examiner   Supervisory Patent Examiner